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**(54) HIGHLY CRIMPED POLYESTER-BASED CONJUGATE FIBER**

(57)Abstract:

**PROBLEM TO BE SOLVED:** To obtain a highly crimped polyester-based conjugate fiber having excellent stretchability, crimp-developing properties and crimp-retention properties by conjugating a polytrimethylene terephthalate with a polyethylene terephthalate into a side-by-side type, selecting the ratio of intrinsic viscosities and the conjugating ratio, and imparting an adequate ratio of an apparent shrinkage to the fiber shrinkage, and a crimp-stretching rate.

**SOLUTION:** This highly crimped polyester-based conjugate fiber has a ratio of the intrinsic viscosities of the polytrimethylene terephthalate to the polyethylene terephthalate satisfying the formula (a):  $0.4 \leq ([\eta_b]/[\eta_a]) \leq 0.8$  (wherein,  $[\eta_a]$  is the intrinsic viscosity of the polytrimethylene terephthalate; and  $[\eta_b]$  is the intrinsic viscosity of the polyethylene terephthalate), the conjugating ratio of the two components regulated so as to be (35:65)-(65:35), the ratio of the apparent shrinkage to the fiber shrinkage satisfying the formula (b):  $6 \leq (S_a/S_b) \leq 12$  (wherein,  $S_a$  is the apparent shrinkage; and  $S_b$  is the fiber shrinkage), and  $\geq 50\%$  crimp-stretching rate.

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